CONNECTING AT-HOME NURSES WITH PATIENTS ONLINE

A COST TO CONVENIENCE: HOW CONSUMERS MANAGE PRIVACY VALUES ONLINE

An Undergraduate Thesis Portfolio Presented to the Faculty of the School of Engineering and Applied Science In Partial Fulfillment of the Requirements for the Degree Bachelor of Science in Computer Science

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SOCIOTECHNICAL SYNTHESIS

Are consumers weighing the costs and benefits each time they hand over personal data online? The technical project is the creation of an e-commerce platform to match registered nurses with patients needing at-home care. The project addresses the broader need for traditional in-person services to be moved online to provide greater convenience. The STS research explores how consumers manage their privacy values online by examining the existing theory of a privacy paradox. Together, this STS research and technical project investigate how ecommerce companies can build trust among customers.

The current process of hiring an at-home nurse occurs either though a nursing agency or word-of-mouth. While word-of-mouth is limited and sometimes unreliable, these nursing agencies act as a middleman charging a hefty additional fee on top of the nurse's rate. Thus, the technical project aims to move this outdated process to an online platform, connecting patients with registered nurses on the basis of specified needs. The method began with outlining key requirements that the final application should meet. The development was split among the team using a scrum methodology and was completed with a round of beta testing.

The resulting application, NurseLink, meets the initial outlined requirements and provides a convenient way for patients and nurses to connect. Nurses are able to browse all nearby patients, create a profile to highlight their experience, schedule an appointment and send a user an invoice following an appointment. Patients are able to browse all nearby nurses, filter by specific care type, request an appointment and pay for the service. The final solution improves the efficiency of hiring nurses, reduces the overall cost, and provides patients with a greater selection of medical professionals from which to hire. It also enables nurse to have more flexibility in the hours they work and the rate they charge. The STS research question asks how consumers are managing their privacy values online. There is a common theory known as the privacy paradox, which describes consumers inconsistent behavior online given their expressed concern for their privacy. However, consumer choice is very limited given the near necessity of sharing data online. The STS research more specifically aims to explore how consumers manage their privacy values online given their complex privacy conceptions, beyond just labeling the situation paradoxical. The thesis claims that consumers are recognizing the inevitability of sharing information online and are calling for greater transparency and control. Sources which explored theories of consumer behavior online, found primarily in published journals, and the current fight for greater data privacy legislation, found primarily in recently published newspaper articles were used to prove this thesis.

A major point of evidence supporting the STS thesis was the overwhelming consumer support for the California Consumer Privacy Act. This act aimed to return control of data back to consumers and California citizens showed it so much support that the senate had no choice but to pass the law, despite backlash from powerful tech companies in the state. This is a prime example of the thesis claim, that citizens are not acting complacent, but are instead finding ways to regain control without having to sacrifice data-collecting services. The STS research concluded that privacy legislation, like the California Consumer Privacy Act and ones that followed, have shifted greater control to the consumer.

Due to the nature of NurseLink, consumers must input sensitive data; including medical history, address and phone number. It is imperative that the developers of such an application have a strong understanding of consumer privacy values. The STS research indicates that, especially in the case of sensitive medical data, an e-commerce platform must provide consumers with a level of control over the data they collect in order to maintain their trust and support.

TABLE OF CONTENTS

SOCIOTECHNICAL SYNTHESIS

CONNECTING AT-HOME NURSES WITH PATIENTS ONLINE

with Jack Girerd and Emily Roberts Technical advisor: Alfred Weaver, Department of Computer Science

A COST TO CONVENIENCE: HOW CONSUMERS MANAGE PRIVACY VALUES ONLINE

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PROSPECTUS

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